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STANDING COMMITTEE ON ENERGY

(2012-13)
FIFTEENTH LOK SABHA

MINISTRY OF NEW AND RENEWABLE ENERGY

[Action Taken on the recommendations contained in the
Twenty-Seventh Report (15th Lok Sabha) on Demands for
Grants of the Ministry of New and Renewable Energy for the
year 2012-13

THIRTY FIRST REPORT



**LOK SABHA SECRETARIAT
NEW DELHI**

December, 2012/Agrahayana, 1934 (Saka)



(FIFTEENTH LOK SABHA)

MINISTRY OF NEW AND RENEWABLE ENERGY

[Action Taken on the recommendations contained in the Twenty Seventh Report (15th Lok Sabha) on Demands for Grants of the Ministry of New and Renewable Energy for the year 2012-13]

Presented to Lok Sabha on 18.12.2012

Laid in Rajya Sabha on 18.12.2012



**LOK SABHA SECRETARIAT
NEW DELHI**

December, 2012/Agrahayana, 1934 (Saka)

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(i)

**COMPOSITION OF THE STANDING COMMITTEE ON ENERGY
(2012-13)**

**Shri Mulayam Singh Yadav - Chairman
LOK SABHA**

2. Shri P.C. Chacko
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4. Shri Syed Shahnawaz Hussain
5. Shri Gurudas Kamat
6. Shri Shripad Yesso Naik
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8. Shri Jagdambika Pal
9. Shri Ravindra Kumar Pandey
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14. Shri Bajju Ban Riyan
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16. Shri C.L. Ruala
17. Shri Sushil Kumar Singh
18. Shri Radha Mohan Singh
19. Shri Jagada Nand Singh
20. Shri Vijay Inder Singla
21. Shri Bhishma Shankar *alias* Kushal Tiwari

RAJYA SABHA

22. Shri V.P. Singh Badnore
23. Shri Shyamal Chakraborty
24. Shri Y.S.Chowdary
25. Shri Bhubaneswar Kalita
26. Shri Bhagat Singh Koshyari
27. Shri Kiranmay Nanda
28. Prof. Anil Kumar Sahani
29. Shri Birender Singh
30. Shri Motilal Vora

SECRETARIAT

- | | | |
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| 2. | Smt. Abha Singh Yaduvanshi | Director |
| 3. | Shri N.K.Pandey | Additional Director |
| 4. | Smt. L.Nemjalhing Haokip | Executive Officer |

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INTRODUCTION

I, the Chairman, Standing Committee on Energy having been authorized by the Committee to present the Report on their behalf, present this 31st Report on the action taken by the Government on the recommendations contained in 27th Report of the Standing Committee on Energy on Demands for Grant (2012-13) of the Ministry of New and Renewable Energy.

2. The 27th Report was presented to the Lok Sabha/laid in Rajya Sabha on 3rd May, 2012. Replies of the Government to all the recommendations contained in the Report were received on 25th September, 2012.

3. The Report was considered and adopted by the Committee at their sitting held on 11th December, 2012.

4. An Analysis on the Action Taken by the Government on the recommendations contained in the 27th Report of the Committee is given at Appendix-II.

5. For facility of reference and convenience, the observations and recommendations of the Committee have been printed in bold letters in the body of the Report.

NEW DELHI
17 December, 2012
Agrahayana 26, 1934 (Saka)

MULAYAM SINGH YADAV,
Chairman,
Standing Committee on Energy

CHAPTER I REPORT

This Report of the Standing Committee on Energy deals with the action taken by the Government on the Observations/Recommendations contained in their Twenty-Seventh Report (Fifteenth Lok Sabha) on the Demands for Grants of the Ministry of New and Renewable Energy for the year 2012-13.

2. The Twenty-Seventh Report was presented to Lok Sabha on 3rd May, 2012 and was laid on the Table of Rajya Sabha on the same day. The Report contained 14 Observations/Recommendations.

3. Action Taken Notes in respect of all the Observations/Recommendations contained in the Report have been received from the Government. These have been examined and categorized as follows:

- (i) Observations/Recommendations which have been accepted by the Government:
Serial Nos. 1, 2, 3, 4, 6, 7, 8, 10, 11, 12, 13 and 14

Total - 12
Chapter-II

- (ii) Observation/Recommendation which the Committee do not desire to pursue in view of the replies of the Government:
Nil

Total - 00
Chapter-III

- (iii) Observation/Recommendation in respect of which the replies of the Government have not been accepted by the Committee and which require reiteration:

Serial No. 9

Total - 01
Chapter-IV

- (iv) Observation/Recommendation in respect of which the final replies of the Government are still awaited:

Serial No. 5

Total - 01
Chapter-V

4. The Committee desire that Action Taken Notes on the Observations/Recommendations contained in Chapter-I and Chapter V of the Report may be furnished to the Committee within three months of the presentation of this Report.

5. The Committee will now deal with action taken by the Government on some of their Observations/Recommendations that require reiteration or merit comments.

A. Eleventh Five Year Plan – Performance Appraisal

(Recommendation Sl.No.2, Para No.2.3)

6. In view of the low allocation of budget provision during the 11th Five Year Plan and also non-achievement of targets in some renewable energy sector, the Committee had directed the Ministry to ensure a better planning, coordination, management and execution mechanism from the very beginning of the 12th Five Year Plan for obtaining optimum utilization of funds vis-à-vis achievement of physical targets of various programmes. The Committee had also recommended that the Ministry should come out with proper strategy incorporating concrete plan of action with proper monitoring mechanism for the 12th Five Year Plan and ensure the achievement of the projected share of 17.55 per cent of the renewable energy vis-a-vis the total power production in the country by the end of 2017 compared to about 12.19 per cent at present.

7. The Ministry of New and Renewable in their Action Taken Reply have stated as under:

"The recommendation of the Committee has been noted. The Ministry fully appreciates the daunting task before it and is laying stress on better planning, coordination, and management and execution mechanism from the very beginning of the 12th Five year Plan for obtaining optimum utilization of funds vis-à-vis achievement of physical targets of various programmes. The Ministry will also firm up its action plan to ensure achievement of the 12th Plan capacity addition target for each renewable energy sector, soon after the plan allocations are finalized and intimated.

It is also submitted that the Grid-interactive power generation capacity is envisaged to increase to around 54,700 MW by March 2017. While the Ministry will put in its all out efforts to achieve this

projected target, the actual % contribution thereof in the total installed power generation capacity will be governed by the capacity addition in conventional sector by that time.

8. The Committee appreciate the Ministry's commitment for achievement of the 12th plan capacity addition target of the various renewable energy sector. The Committee also acknowledge that the Ministry envisages to increase Grid-interactive power generation capacity to around 54,700 MW by March 2017. In the context of percentage of composition of energy from new and renewable sources the Ministry has stated that total installed power generation capacity will be governed by the capacity addition in conventional sector by that time. Since there is a finality in the target of capacity addition by conventional sector as well as by non-conventional sector, there is no scope of any uncertainty and laxity with regard to the target achievement in the non-conventional sector. Further, the performance of New and Renewable Energy Sector is in no way related with the performance in conventional sector. Also if, conventional sector do not perform upto the mark, the percentage contribution by non-conventional sector in the total power generation will increase. The Committee, therefore, desire that the target set forth in the 12th Plan should be achieved by judicious deployment of resources and by adopting impeccable and coordinated strategy to implement the projects.

B. Renewable Power - Evacuation Problem

Recommendation (Sl. No.5, Para No. 2.6)

9 The Committee had been apprised that the Ministry of New and Renewable Energy is facing acute evacuation problem particularly at the solar installations in Rajasthan and Laddakh and Wind Energy Installations in Tamil Nadu which otherwise are ideal places for setting up solar photovoltaic panels and wind power installations respectively. The Committee were also apprised that the MNRE had proposed Rs.1500 crore for transmission infrastructure and Grid-interactive Renewable Power Programme so that the power generated from these projects which cannot be absorbed in the States could be navigated and connected to the National Grid but the Planning Commission did not grant or sanction the proposed amount stating that transmission infrastructure is the job of Ministry of Power. In view of this, the Committee had recommended that the Ministry of New and Renewable Energy should again take up the matter with the Planning Commission for reconsideration and finalise the authority responsible in consultation with Ministry of Power for the job in a time bound manner in order to give a boost to the upcoming Grid-interactive Renewable Power Programmes so as to utilize the power generated fully.

10. The Ministry in their Action Taken Reply have stated as under:

"Although the allocation of Rs.1500 crore for transmission infrastructure has not been approved for the Annual Plan 2012-13, a total requirement of Rs.7,000 crore towards this component has been projected by the Ministry in its 12th plan proposals submitted to the Planning Commission. Further necessary action will be taken by the Ministry soon after final approval of the plan proposals by competent authority that is presently awaited".

11. **The Ministry had stated that the Planning Commission had not sanctioned the proposed amount of Rs.1500 crore for transmission infrastructure stating that this is the job of Ministry of Power. In this context, the Committee had asked the Ministry of New and Renewable**

Energy to take up the matter with the Planning Commission for reconsideration and finalise the authority responsible in consultation with Ministry of Power. The Ministry has informed that a total requirement of Rs.7000/- crore towards this component has been projected by the Ministry in its 12th Plan proposals submitted to Planning Commission and final approval is awaited. The Committee would like the Ministry to pursue it for taking conclusive action under intimation to the Committee. They would also like to know the details of the scheme for utilizing Rs.7000 crore during the 12th plan for transmission infrastructure as also the beneficiary areas of the scheme.

C. National Solar Mission

(Recommendation Sl. No.7, Para No. 2.8)

12. Under the Jawaharlal Nehru National Solar Mission, the Committee had noted that against the first phase target of 1100 MW capacity addition of grid connected solar power generation, a total capacity of 503.09 MW was installed as on February, 2012 and against a target of 200 MWp capacity equivalent off-grid solar photovoltaic system fixed for the first phase, the Ministry have sanctioned SPV projects aggregating to 118.12 MWp during 2010-11 and 2011-12, out of which only 25 MWp equivalent capacity has been installed. The Committee were disappointed with the progress made under Solar Mission. They were also concerned that non-achievement of the first phase targets will have the cascading effect on the remaining ambitious targets of the Jawaharlal Nehru National Solar Mission. The Committee, had therefore, recommended that the Ministry should make a serious effort including upscaling of their targets for the year 2012-13 of the Solar Mission to accomplish the first phase target.

13. In their Action Taken Reply, the Ministry have stated as under:

"Against a target of 100 MWp during 2010-11 and 2011-12, the Ministry sanctioned projects aggregating to 118.12 MWp. Since the funds provided to the Ministry during 2012-13 are not adequate, the Ministry has reduced the target of sanctioning to 30 MWp. However, more projects are likely to be sanctioned if the funds are made available from National Clean Energy Fund or any other resource during the current year. Projects aggregating to 30 MWp are likely to be commissioned during the current financial year.

The implementation of JNNSM is progressing steadily as per targets and timelines envisaged. As per latest information, a capacity of 1154 MW of grid connected solar power has been selected for setting up during Phase 1 against a target of 1,100 MW. This includes 620 MW selected during Batch-1, 84 MW under migration scheme, 100 MW under Rooftop PV and Small Solar Power Generation Programme (RPSSGP) and 350 MW under Batch-2. Out of this, a capacity of 268.3 MW has already been commissioned, while 340 MW of solar PV projects under Batch-2 and 470 MW solar thermal projects under Batch-1 have time for completion up to February, 2013 and May, 2013 respectively. Additionally, a capacity of 4 MW under RPSSGP scheme has also been commissioned, which is under verification. The policies brought out under JNNSM has also encouraged various States to bring out State specific solar policies, and some States have made substantial progress in setting up grid connected solar power projects in the country. Including this, the total capacity of solar power projects has crossed over 1,000 MW (1044 MW as on 31st August 2012), and the actual achievement is likely to be much above the Phase-1 targets.

The Ministry is closely monitoring progress of projects which are under implementation. A review meeting was recently organized at Jodhpur, Rajasthan, for solar PV projects under Batch-2 which was attended by the representatives of the State Government, State Utilities/ Discoms, District Administration, Pollution Control Board and NVVN. Various issues related to land, transmission line for connectivity, technology tie-up and financial closure were discussed. As per reports received from NVVN, all the projects with aggregate capacity of 340 MW under Batch-2 have achieved financial arrangement.

For solar thermal power projects, an expert committee comprising of eminent scientist and representatives of NTPC and CEA has been constituted to review progress of implementation. The Committee

has already visited sites of these plants and a report on the same has been received.

The Payment Security Scheme, as was approved by the Cabinet, has been implemented and funds have been released from budgetary sources of the Ministry to NVVN."

14. The Committee note that the Ministry is optimistic of achieving Phase 1 target of 1,100 MW of grid connected solar power. At the same time, they have stated that since the funds provided to the Ministry for the year 2012-13 are not adequate, they have reduced the target of sanctioning to 30 MWp and stated that more projects are likely to be sanctioned if the funds are made available from National Clean Energy Fund or any other resource during the current year. The Committee would like to know the Ministry's initiative to raise the required fund in order to implement the planned projects effectively. The Ministry has also stated that the policies brought out under JNNSM has also encouraged various States to bring out State specific solar policies, and some States have made substantial progress in setting up grid connected solar power projects in the country. The Committee would like to be apprised of the details including the quantum of achievement, technology applied and the utilization vis-à-vis the potential, of the States which have made substantial progress in the solar energy sector. While acknowledging the efforts of the Ministry under JNNSM, especially the review meeting to sort out various problematic issues such as land transmission line for connectivity, technological tie up and financial

closure, the Committee would like the Ministry to upscale the targets for 2012-13.

D. Remote Village Electrification Programme (RVEP)

(Recommendation Sl. No.9, Para No. 2.10)

15. The Committee had noted that the initial 11th Plan target for electrification of 10,000 villages and hamlets was reduced to 7000, out of which only 6900 villages and hamlets have been sanctioned which includes 1058 border villages sanctioned under a special package for electrification in border villages of Arunachal Pradesh. The Committee were informed that the duration of RVE Programme is approved up to March 2012. The Committee were unhappy that even when the reduced targets of 11th Plan could not be achieved, the Ministry's 12th Five Year Plan programmes do not include the RVE Programme at all. The Committee, had therefore, recommended that the Ministry should critically review their performance and accomplish the remaining unelectrified villages and hamlets which were sanctioned in 11th Plan in a time bound manner and also for re-assessment/evaluation of the RVE programme and continue the programme in the 12th Five Year Plan in a more effective manner.

16. In their Action Taken Reply, the Ministry have stated as under:

The Ministry had been implementing Remote Village Electrification Programme for providing financial support for lighting/basic electrification in those remote unelectrified census villages and unelectrified hamlets of electrified census villages where grid extension was not found feasible by the State Governments and hence were not covered under the Rajiv Gandhi Gramin Vidyutikaran Yojana. Such villages were provided basic facilities for lighting/electricity through various renewable energy sources. The programme was implemented in States by State notified implementing Agencies. The programme completed on 31st March 2012 as per the approval of the Cabinet.

The overall target of 10000 villages and hamlets for the 11th Plan was laid on the basis of approximate projection for the number of villages which were not likely to be covered through grid by the States. Tentative indications received by that time from States, for such villages, were utilized for these projections. This was also explained in the 11th Plan document of the Ministry. The targets set for sanction of financial support become at the best notional in light of the initial indications received from the States for the number of villages required to be covered. Projects were sanctioned on case to case basis after proposals are submitted by the implementing Agencies as per the guidelines of the scheme. During the 11th Plan period, proposals for coverage of 7091 villages and hamlets (including 1058 border villages of Arunachal Pradesh) were received from various State governments, which were sanctioned by the Ministry. In addition, 2824 villages and hamlets, which were sanctioned earlier, were ongoing. Thus all together, in the 11th Plan, 9915 villages and hamlets were sanctioned/ongoing and 5947 villages and hamlets have been completed which also includes the villages and hamlets sanctioned/ongoing prior to the 11th Plan period. The Ministry on its part is making all out efforts to persuade the State Governments through continuous review meetings at various levels for timely completion of these villages & hamlets.

17. The Committee find that under RVEP during the 11th Plan, 9915 villages and hamlets were sanctioned/ongoing and 5947 villages and hamlets have been completed including the villages and hamlets sanctioned/ongoing prior to the 11th Plan period. The Committee find that more than 3968 villages and hamlets are yet to be completed. The Ministry have also stated that they are making all out efforts to persuade the State Governments through continuous review meetings at various levels for timely completion of these villages & hamlets. However, the Ministry failed to furnish specific reply to the recommendation of the Committee regarding continuation of the RVE Programme in the 12th Plan. Instead the Ministry has stated that the programme was completed on 31st March, 2012 as per

the approval of the cabinet. The concern of the Committee is for providing basic lighting/electrification in the unelectrified remote villages and hamlets where grid connection is not found feasible. In the Committee's view, discontinuing the RVE Programme, if done, is nothing but depriving the people living in the remote countryside particularly border areas of their basic rights. The Committee while reiterating their earlier recommendation would like to be apprised about the action being taken under RVE programme and also the timeframe by which the incomplete villages would be electrified. They would also await specific response of the Ministry whether the RVE Programme would be continued in the 12th Plan period in case certain villages are uncovered or remain un-electrified after completion of the sanctioned/ongoing electrification projects under the Scheme.

CHAPTER II

OBSERVATIONS/ RECOMMENDATIONS WHICH HAVE BEEN ACCEPTED BY THE GOVERNMENT

(Recommendation Serial No.1, Para No.2.2)

Status of implementation of the recommendations of the Committee contained in Eighteenth Report, under Direction 73A of the 'Directions by the Speaker'

The Eighteenth Report of the Standing Committee on Energy on Demands for Grants of the Ministry of New and Renewable Energy for the year 2011-12 was presented to Parliament on 17th August, 2011. The Action Taken Replies of the Government to all the recommendations contained in the Report were received on 16th November, 2011. The Twenty-fourth Report of the Committee on the Action Taken by the Government on the recommendations contained in the Eighteenth Report was presented to Parliament on 29th December, 2011. In the said Report, the Committee had reiterated their two recommendations on 'Wind Energy Programme' and 'Research, Design and Development in New and Renewable Energy' and had also commented on the 'Remote Village Electrification Programme (RVEP)' of the Ministry. Final Action Taken Statements on the recommendations contained in the 24th Report were received from the Ministry on 30th March, 2012. The Committee find that the Ministry in their Final Action Taken Statements have replied only to the issues relating to 'Wind Energy Programme' and 'Research, Design and Development in New and Renewable Energy' and not given any reply on the issue relating to 'Remote Village Electrification Programme' (RVEP). The Committee desire that the reply to the recommendation of the Committee contained in their 24th Report pertaining to the 'Remote Village Electrification Programme' may be furnished in the prescribed format immediately. Moreover, the Committee observe that more than six months have passed since the presentation of the Eighteenth Report to the Parliament. The Committee would like to remind the Ministry to observe the provisions of Direction 73A of the 'Directions by the Speaker' and arrange for the Statement by the Minister in the House regarding the status of implementation of the recommendations of the Committee contained in their Eighteenth Report, expeditiously.

Reply of the Government

The replies to the recommendation of the Committee listed at Sl. No.7 Para 20.2.8 (Para 11 of 24th Report) pertaining to the Remote Village Electrification Programme have been furnished by the Ministry to Lok Sabha

Secretariat on 13th June 2012. The Statement by the Minister for New and Renewable Energy regarding the status of implementation of the recommendations of the Committee contained in the 18th Report of the Standing Committee of Energy on Demands for Grants (2011-12) of the Ministry of New and Renewable Energy has also been laid in Lok Sabha by on 11th May 2012.

**[Ministry of New and Renewable Energy
File No. 8/6/2011-P&C Dated 25-9-2012]**

(Recommendation Sl. No.2, Para No. 2.3)

Eleventh Five Year Plan – Performance Appraisal

The Committee note that during the 11th Five Year Plan, the actual budget provision made available to the Ministry of New and Renewable Energy (MNRE) was Rs.4068 crore (BE)/ Rs.3897.80 crore (RE) and an amount of Rs.3798.37 crore was actually utilized. While the Government has done fairly well in utilization of the allocated amount particularly for Grid-interactive & off Grid renewable power generation and Renewable Energy for Rural Applications programmes, the fund utilization was on lower side, especially during the first half of the 11th Plan period, under Renewable Energy for Urban, Industrial and Commercial Applications and Research, Design and Development in Renewable Energy Programmes. The trend of the utilization of the allocated funds indicate that the amount made available under various programmes were not being utilized properly during the first three years of the Plan period in general and the utilization of funds increased considerably during the last two years, thus giving a better picture to the total tally of utilization of funds on completion of the 11th Plan. The Committee also find that the Ministry were not satisfied with the GBS component of the total outlay amounting to Rs.4000 crore for 11th Plan period and had represented to Planning Commission to enhance the Gross Budgetary Support (GBS) component showing apprehension that the approved Gross Budgetary Support (GBS) would be inadequate for achieving the 11th Plan goals/targets. The Ministry were then advised that the issue could be revisited at the time of Annual Plan discussion. Had the Ministry of New and Renewable Energy been able to utilize the allocated amount properly in the first half of the Plan, the Committee feel that probably the Planning Commission would have reconsidered the Gross Budgetary Support (GBS) Component during the mid-term appraisal. However, the Gross Budgetary Support (GBS) component of the Plan outlay remained more or less the same during that period. Though the Ministry can have a sense of satisfaction at the end of the Plan for having been able to manage a respectful utilization, yet there is certainly an element of regret for missing the opportunity of getting enhanced GBS outlay during the concluded Five year Plan.

The Committee expect that the Ministry would ensure a better planning, coordination, management and execution mechanism from the very beginning of

the 12th Five Year Plan for obtaining optimum utilization of funds vis-à-vis achievement of physical targets of various programmes.

The Committee note that the physical achievements during the 11th Plan had been 13124.97 MW capacity against the target of 14162 MW under Grid Power and that of 505.11 MWeq against the target of 441.25 MWeq under Off-Grid Power upto February, 2012. The overall achievements have remained almost at par with the targets nearly in all the programmes of Grid Power and Off-Grid Power barring a few areas like urban Waste to Power in both Grid and Off-Grid Power, Rural Gasifier and SPV Off-Grid programmes, where the physical achievements are not satisfactory. The Committee also find that the Ministry had reduced physical target substantially i.e., from coverage of 10,000 villages to 7000 villages/hamlets under Remote Village Electrification Programme during 11th Plan against which 6900 villages/hamlets could be completed. Nevertheless, the Committee appreciate the efforts made by the Ministry to produce satisfactory outputs in certain areas like Wind Energy, Small Hydro, Bio-Mass and Solar Grid Power in the first phase. At the same time the Committee feel that the Ministry have got a daunting task ahead during the 12th Five Year Plan where a proposed target of 29,800 MW under Grid Power, that is an increase of about 110 percent from 11th Plan target and 3,267 MWeq under Off-Grid Power, that is more than six times higher than the 11th Plan target is to be achieved. The Committee therefore, recommend that the Ministry should come out with proper strategy incorporating concrete plan of action with proper monitoring mechanism for the 12th Five Year Plan and ensure the achievement of the projected share of 17.55 per cent of the renewable energy vis-a-vis the total power production in the country by the end of 2017 compared to about 12.19 per cent at present.

Reply of the Government

The recommendation of the Committee has been noted. The Ministry fully appreciates the daunting task before it and is laying stress on better planning, coordination, and management and execution mechanism from the very beginning of the 12th Five year Plan for obtaining optimum utilization of funds vis-à-vis achievement of physical targets of various programmes. The Ministry will also firm up its action plan to ensure achievement of the 12th Plan capacity addition target for each renewable energy sector, soon after the plan allocations are finalized and intimated.

It is also submitted that the Grid-interactive power generation capacity is envisaged to increase to around 54,700 MW by March 2017. While the Ministry will put in its all out efforts to achieve this projected target, the actual % contribution thereof in the total installed power generation capacity will be governed by the capacity addition in conventional sector by that time.

**[Ministry of New and Renewable Energy
File No. 8/6/2011-P&C Dated 25-9-2012]**

(Recommendation Sl. No.3, Para No. 2.4)

Demands For Grants of MNRE for 2012-13

The Committee note that the Ministry of New and Renewable Energy has got a marginal increase in the Budget Estimate for the year 2012-13 (Gross Budgetary Support of Rs.1385 crore) over the Revised Estimates of previous year (Gross Budgetary Support of Rs.1360 crore). The Committee also note that the Ministry had sought a Gross Budgetary Support to the tune of Rs. 5,582 crore in their annual plan to achieve the targets. The Planning Commission subsequently reduced the amount to Rs.2,979 crore. The Committee are surprised to note that the Ministry of Finance has sanctioned a meagre amount of Rs.1,385 crore only as Gross Budgetary Support for the year 2012-13 which is not even 25 per cent of the proposed demand of the Ministry. Further, the Ministry of New and Renewable Energy have submitted that this amount would be grossly inadequate for upscaling of activities envisaged under various programmes of the Ministry in the year. Scrutiny of the information supplied by the MNRE reveals that the programme of the Ministry like Solar Photovoltaic (SPV) Off-Grid programme have suffered a setback due to lack of required funds leading to non-achievement of target during the first phase of the Jawaharlal Nehru National Solar Mission. As such the Ministry are unable to meet a committed Central Financial Assistance (CFA) liability of Rs.1141.88 crore towards the sanctioned 118.12 MWp SPV Off-Grid projects during 2010-11 and 2011-12. The Ministry need to sanction an additional capacity of about 82 MWp during 2012-13 to meet the target of 200 MW in the first phase of the mission. The Committee are unhappy to note that a target of only 30 MWp could be fixed for the year 2012-13 due to the fact that the allocation of funds for year has slipped to only Rs.332 crore. They feel that adequate funding is a must for harnessing the potential of available renewable resources. The Committee are unable to comprehend that the Ministry of New and Renewable Energy, which has upgraded their performance over the years on both financial and physical fronts and have ambitious plans for the next Five Year plan are rather being punished by the Ministry of Finance by not acceding to the recommendations of even the Planning Commission with regard to budgetary allocation to the MNRE for the year 2012-13. Against this backdrop of excellent achievement and in the light of the significance of renewable energy vis-à-vis conventional energy the Committee recommend that the Ministry of New and Renewable Energy should pursue with the Ministry of Finance as well as Planning Commission and be persistent to get allocation of more funds for the Ministry so that the renewable energy programmes, particularly the project of the ambitious Solar Mission may not face a setback in the beginning itself. They urge that Ministry of New and Renewable Energy should reiterate their demand before the Planning Commission and Ministry of Finance while reflecting the importance and significance of their programmes and activities especially with the perspective of

energy security, energy access, climate change, reducing dependence on conventional sources of energy and ever increasing demand for energy.

Reply of the Government

The Ministry has taken up the matter with Planning Commission and Ministry of Finance. Dy. Chairman, Planning Commission has informed that the programmes of the Ministry deserve more resources in Twelfth Plan as a whole and hope to be able to respond adequately once the resources position for the full plan period is finalized over the next four months; also that he had apprised the Finance Minister of the additional requirements of the Ministry who agreed that based on the performance of the Ministry in absorbing resources during the year, more funds could be sought at RE stage, depending on the overall resource position. The Ministry will accordingly pursue the matter with Planning Commission and Finance Ministry at RE stage. The Ministry is also seeking additional funds for specific projects under National Clean Energy fund.

**[Ministry of New and Renewable Energy
File No. 8/6/2011-P&C Dated 25-9-2012]**

(Recommendation Sl. No.4, Para No. 2.5)

Renewable Power- Grid and Off-Grid Programmes

The Committee note that upto 29 February, 2012 the Ministry of New and Renewable Energy had achieved 3409 MW capacity (including States initiatives in Solar Power) against the physical target of 3435 MW during 2011-12 under Grid-interactive power. The allocation during the year was Rs.284 crore at BE stage and Rs. 276.10 crore at RE stage whereas the actual expenditure of Rs.275.10 crore could be made in the year 2011-12. Under Off-grid/Distributed Renewable Power, the achievement was 116.46 MWeq (upto 29th February, 2012) against the physical target of 128.50 MWeq in 2011-12. The allocation at BE stage was Rs.470 crore and at RE stage was Rs.464 crore while the expenditure of Rs.461.98 crore was actually made in the year 2011-12. The Committee find that the Ministry of New and Renewable Energy had proposed for an allocation of Rs.2380 crore to achieve the physical target of Rs.4165 MW (including Rs.1500 crore for transmission infrastructure) under Grid-power in 2012-13 and an allocation of Rs.654 crore was sought to achieve the target of 216 MWeq under Off-grid/DRPS in 2012-13. The Committee are surprised to observe that the Ministry of Finance has not paid heed to the proposal of Rs.1500 crore for development of transmission infrastructure and even for the physical target achievement, actual allocation for 2012-13 has been reduced by more than Rs.400 crore w.r.t. the proposed allocation even though the physical target has remained more or less the same under Grid-interactive power. Allocation is also less under Off-Grid Distributed Power as compared to the

demand. The Committee have been given to understand that the target of the Solar SPV applications in Off-grid Distributed Power had to be reduced to the level of 30 MWeq from what could have been about 100 MWeq in 2012-13, due to less allocation of funds. The allocations have been substantially reduced as compared to the demand particularly in Wind Power, Small Hydro Power and Solar Power under Grid-interactive, while these three components constitute about 88 per cent of total Grid-interactive target for the year 2012-13. The Committee are happy to find that the Ministry of New and Renewable Energy has picked up well over the years in their performance in both physical and financial terms. While taking note of the sincere efforts of the Ministry in the development of the renewable energy, particularly Wind, Small Hydro and Solar Energy, the Committee feel that there is no scope for any complacency and a lot more is required to be done in further identification of potential and its realization giving impetus to both Grid and Off-grid programmes. Rather the Committee are concerned about fixing of the physical targets and wish that the Off-grid target should have been enhanced in 2012-13 from the target of 128.5 MWeq for the previous year instead of lowering it slightly to the level of 126 MWeq for the current year. Similarly, the Committee are not convinced with the reduction of allocation from Rs.470/464 crore (BE/RE) in 2011-12 to Rs.450 crore (BE) in 2012-13. The Committee are of the opinion that the renewable energy development programmes should not suffer due to lack of required funds and the strategy for achievements of goals in 12th Plan period should be made in such a way that the financial allocations are adequate to meet the physical targets and produce the desired results. However, the Committee would like to point out that the Ministry had performed reasonably well during the pervious year with almost similar pattern of allocation and hope that they would achieve targets of 2012-13 also with innovative ways, meticulous planning, flawless execution, improved R&D and appropriate monitoring mechanism.

Reply of the Government

The observations of the Committee have been noted. The Ministry will seek additional funds at Revised Estimates stage for all its major programmes including off-grid schemes, whose outlay have been curtailed on account of inadequate Budget allocation during 2012-13. It will also review and firm up its strategy for achievement of set goals in the 12th plan period soon after the plan allocations are finalized and intimated.

**[Ministry of New and Renewable Energy
File No. 8/6/2011-P&C Dated 25-9-2012]**

(Recommendation SI. No.6, Para No. 2.7)

The Committee were informed during the oral evidence that the expansion of solar photovoltaic projects in Rajasthan, especially in districts like Jodhpur, Jaisalmer and some other cities will lead to large demand for technically qualified

technicians and that they had requested Rajasthan Government to propose setting up ITIs in those areas for providing training to take advantage of the opportunity of employment for the local youth. The Ministry of New and Renewable Energy is ready to provide monetary support for this purpose. The Committee find the proposal of the MNRE a very effective proposition and emphasize that the Ministry should take up the matter with the Government of Rajasthan and other similar placed states expeditiously reflecting the utility and purpose for training the youth which would lead to gainful employment opportunities. The Committee may be kept abreast of the progress in the matter.

Reply of the Government

The Ministry had written to Rajasthan Government and also the Gujarat Government for strengthening of the ITIs in the state and for strengthening of the ITIs in the state and for organizing of training programmes in renewable energy sector by these ITIs, for which the Ministry could extend financial support. Progress thereafter is as follows:

- Grant-in-aid of Rs. 50 lakh has been provided by the Ministry to National Institute of Technology, Jaipur to upgrade its laboratory and library facilities for renewable energy courses initiated by it.
- Grant-in-aid of approx. Rs.24 lakh has been sanctioned by the Ministry to the Directorate of Employment & Training, Gandhinagar, Gujarat towards recurring expenditure and stipend for 450 students to be trained in 9 institutes under MES courses.
- Course material developed by the Ministry has been provided to Directorate of Technical Education, Rajasthan for incorporation in ITI syllabus and also posted on Ministry's website for use by other interested institutions/ States.

**[Ministry of New and Renewable Energy
File No. 8/6/2011-P&C Dated 25-9-2012]**

(Recommendation SI. No.7, Para No. 2.8)

National Solar Mission

The Jawaharlal Nehru National Solar Mission which was approved by the Govt. of India in November, 2009 and started in 2010. It aims at development and deployment of solar energy technologies in the country to achieve parity with grid power tariff by 2022. The target of the Mission include deployment of 20,000 MW of grid connected solar power and 2,000 MW of off-grid solar applications by 2022 and that the Mission would be implemented in three phases, where first phase concludes in March, 2013. The Committee note that against the first phase target of 1100 MW capacity addition of grid connected solar power

generation, a total capacity of 503.09 MW has been installed as on February, 2012, leaving a capacity of 597 MW to be installed during 2012-13 which is the terminal year of first phase of the Mission. Further, against a target of 200 MWp capacity equivalent off-grid solar photovoltaic system fixed for the first phase, the Ministry have sanctioned SPV projects aggregating to 118.12 MWp during 2010-11 and 2011-12, out of which only 25 MWp equivalent capacity has been installed so far. The Committee have been informed that a target of 30 MWp has been fixed during 2012-13, which if achieved, will lead to the total capacity addition of 1st Phase under off-Grid SPV systems to 55 MWp against a target of 200 MWp. The Committee are disappointed with the progress made so far under Solar Mission. Keeping in view, the last two years' performance of the Ministry, the Committee are apprehensive about achievement of the physical targets of the first phase of the Mission. The Committee are concerned that non-achievement of the first phase targets will have the cascading effect on the remaining ambitious targets of the Jawaharlal Nehru National Solar Mission. The Committee, therefore, strongly recommend that the Ministry should make a serious effort including upscaling of their targets for the year 2012-13 of the Solar Mission to accomplish the first phase target and ensure that the non-achievement of target in the first phase do not spill over to the second phase of the Mission.

Reply of the Government

Against a target of 100 MWp during 2010-11 and 2011-12, the Ministry sanctioned projects aggregating to 118.12 MWp. Since the funds provided to the Ministry during 2012-13 are not adequate, the Ministry has reduced the target of sanctioning to 30 MWp. However, more projects are likely to be sanctioned if the funds are made available from National Clean Energy Fund or any other resource during the current year. Projects aggregating to 30 MWp are likely to be commissioned during the current financial year.

The implementation of JNNSM is progressing steadily as per targets and timelines envisaged. As per latest information, a capacity of 1154 MW of grid connected solar power has been selected for setting up during Phase 1 against a target of 1,100 MW. This includes 620 MW selected during Batch-1, 84 MW under migration scheme, 100 MW under Rooftop PV and Small Solar Power Generation Programme (RPSSGP) and 350 MW under Batch-2. Out of this, a capacity of 268.3 MW has already been commissioned, while 340 MW of solar PV projects under Batch-2 and 470 MW solar thermal projects under Batch-1 have time for completion up to February, 2013 and May, 2013 respectively. Additionally, a capacity of 4 MW under RPSSGP scheme has also been commissioned, which is under verification. The policies brought out under JNNSM has also encouraged various States to bring out State specific solar policies, and some States have made substantial progress in setting up grid connected solar power projects in the country. Including this, the total capacity of solar power projects has crossed over 1,000 MW (1044 MW as on 31st August

2012), and the actual achievement is likely to be much above the Phase-1 targets.

The Ministry is closely monitoring progress of projects which are under implementation. A review meeting was recently organized at Jodhpur, Rajasthan, for solar PV projects under Batch-2 which was attended by the representatives of the State Government, State Utilities/ Discoms, District Administration, Pollution Control Board and NVVN. Various issues related to land, transmission line for connectivity, technology tie-up and financial closure were discussed. As per reports received from NVVN, all the projects with aggregate capacity of 340 MW under Batch-2 have achieved financial arrangement.

For solar thermal power projects, an expert committee comprising of eminent scientist and representatives of NTPC and CEA has been constituted to review progress of implementation. The Committee has already visited sites of these plants and a report on the same has been received.

The Payment Security Scheme, as was approved by the Cabinet, has been implemented and funds have been released from budgetary sources of the Ministry to NVVN.

[Ministry of New and Renewable Energy
File No. 8/6/2011-P&C Dated 25-9-2012]

(Recommendation Sl. No.8, Para No. 2.9)

The Committee note that under Off-grid SPV programmes, the budgetary allocation during the year 2010-11 was Rs.227.49 crore (BE) and Rs.254.99 crore (RE), whereas, the actual expenditure was Rs.254.50 crore. In 2011-12, the actual expenditure was Rs.458.64 crore against the BE and RE of Rs.390 crore and Rs.486.5 crore respectively. For the year 2012-13, the allocation is only Rs.332 crore. The Committee find that in the beginning, a target of 200 MWp capacity equivalent off-grid SPV systems was fixed for the first phase i.e. from April 2010 to March, 2013. The Committee were informed that the MNRE had sanctioned 118.12 MWp equivalent against a total target of 100 MWp in 2010-11 and 2011-12 taken together, but the reported achievement were merely of 25 MWp equivalent. Keeping in view the total first phase target of 200 MWp equivalent, a target of atleast 80 MWp should have been fixed for the terminal year of the first phase viz. 2012-13. However, the Committee are unhappy to observe that a target of only 30 MWp has been finally fixed during 2012-13 as the allocation of fund is only Rs.332 crore for the year. MNRE has itself admitted that the target for 2012-13 has been reduced due to non-availability of funds during the year. The Committee feel that the drastic reduction of target from proposed 100 MWp to 30 MWp for the year 2012-13 will badly affect the implementation of projects under off-Grid SPV Systems in particular and the

JNNS Mission in general. The Committee, therefore, recommend the Ministry to pursue the matter with the Planning Commission and the Ministry of Finance for more allocation of funds at RE stage.

Reply of the Government

The Ministry has approached Ministry of Finance for allocating additional funds from the National Clean Energy Fund for few projects. The Inter-Ministerial Group in the Department of Expenditure, Ministry of Finance has approved off-grid SPV systems/ power projects of 22.6 MWp with an allocation of Rs. 210.91 crore for the year 2012-13 and 2013-14.

**[Ministry of New and Renewable Energy
File No. 8/6/2011-P&C Dated 25-9-2012]**

(Recommendation Sl. No.10, Para No. 2.11)

Remote Village Electrification Programmed (RVEP)

In their 18th Report, the Committee had recommended that the Ministry of New and Renewable Energy in consultation with the Ministry of Power may set up a co-ordination Committee consisting of representatives from various implementing agencies at the required level to facilitate and monitor implementation of two programmes under Rajiv Gandhi Grameen Vidyutikaran Yojana and Remote Village Electrification Programme specifically in identification of villages and hamlets which will be covered under the respective programmes. The Ministry in their Action Taken Replies have inter-alia submitted that a co-ordination Committee has already been constituted under the Chairmanship of the Secretary, Ministry of New and Renewable Energy. The Committee consists of representatives from the Ministry of Power, Ministry of Panchayati Raj, Rural Electrification Corporation, Planning Commission and representatives from the State Implementing Agencies. The committee monitors the implementation of RVE Programme in addition to sanctioning of new projects. The Committee are satisfied that a Co-ordination Committee has been constituted in accordance with their recommendation. They would, however, like to be apprised of effectiveness of this Committee in coordinating and implementing the desired objectives of identification of villages for RVE Programmes, coverage of villages so far and time bound programmes for electrification of the remaining villages etc. The Committee would also expect the coordination committee to coordinate and ensure the maintenance and monitoring of the systems installed in electrified villages.

Reply of the Government

A Coordination Committee was constituted under the Chairmanship of Secretary, Ministry of New and Renewable Energy which had got representation from Ministry of Power, Ministry of Panchayati Raj, Rural Electrification Corporation, Planning Commission and representative from State Implementing Agency. The Committee met frequently to monitor the implementation of RVE programme in addition to sanctioning of new projects. As a result of continuous follow up and monitoring 7091 villages and hamlets were sanctioned during the 11th Plan period. The Committee had been effective in proper coordination with Rural Electrification Corporation/Ministry of Power for identification of remote villages and hamlets for coverage under the RVE programme. The Ministry continues to follow up with the respective States to persuade them to expedite the implementation of RVE programme.

**[Ministry of New and Renewable Energy
File No. 8/6/2011-P&C Dated 25-9-2012]**

(Recommendation Sl. No.11, Para No. 2.12)

Research, Design and Development in New and Renewable Energy

The Committee note that there is policy for promoting research, design and development activities in new and renewable energy sectors. It has provision to support R&D for technology development and demonstration through various academic and research institutions including autonomous bodies and centres. The thrust area of research and development activities should include resource identification, resource assessment, technological development, demonstration, popularization, cost competitiveness and commercialization of new and renewable energy sources. They can become an effective alternative of conventional sources of energy provided due attention is given to R&D in this sector.

For the year 2012-13, an amount of Rs.194 crore has been earmarked for R&D activities. Of this Rs.64 crore will be for research Institutions under MNRE such as Solar Energy Centre and wind energy technology, wind national institutes of renewable energy. The remaining Rs.130 crore be utilized for R&D efforts in solar energy, bio-energy, hydrogen energy, fuel cells and small hydro areas.

No doubt, as compared to last three years, R&D allocation for the year 2012-13 has shown an increase but it is not adequate enough as required by this sector. The total budgetary allocation of the Ministry is less than 0.50 per cent of the total budget of the Government. From the allocation of Rs.3355 crore, only Rs.194

crore has been allocated for R&D sector. It is high time that the Govt. ensures that R&D activities do not suffer for want of funds. Regarding major achievement under R&D activities during 2011-12, the Committee have been informed that hydrogen energy, bio-fuels and solar energy were the main areas in which R&D activities were focused and that for the year 2012-13, the focus of the R&D support will be on solar energy, hydrogen energy/fuel cells and wind power which will also cover Bio energy and small hydro power. The Committee are happy to note that of late various Centres of Excellence like different IITs, AHEC Roorkee, CSIR, the Indian Institute of Chemical Technology Delhi, National Petroleum Research Institute Dehradun, National Physics Laboratory, etc. have been roped in with regard to various research programmes of the renewable energy sector.

The Committee feel that the R&D is the most crucial and prime factor for development of all the renewable sources of energy especially keeping in mind the shift of country's focus from fossil fuel (coal/gas/oil) to these renewable sources of energy like solar, wind, hydrogen, biogas etc. Further, the endeavour of the Ministry itself to increase its share in the total energy sector from present 12.19 percent to 17.55 percent in 2017 would call for enhanced allocation to this R&D sector.

The Committee urge the Ministry also to focus on technological advancements in other countries and adopt new technologies. They emphasize that the efforts being made or the experiments being undertaken by the Ministry in regard to Hydrogen Energy along with CNG, fuel cells, electric and hybrid electric vehicles should be pursued vigorously and with a result and commercial oriented approach. The Committee recommend that the Ministry of New and Renewable Energy should persuade the Ministry of Finance for additional funds for R&D projects at Revised Estimate stage.

Reply of the Government

The suggestion of the Committee has been noted. The Ministry lay increased emphasis on R&D in the new and emerging renewable energy sector. It will also persuade Ministry of Finance for additional funds for R&D projects at Revised Estimates stage.

**[Ministry of New and Renewable Energy
File No. 8/6/2011-P&C Dated 25-9-2012]**

Recommendation (Sl. No.12, Para No. 2.13)

The Committee note that with a view to institutionalize the various efforts for giving fillip to renewable energy sector, Solar Energy Corporation of India and the Sardar Swarn Singh National Institute of Renewable Energy are proposed to be established under the Ministry of New and Renewable Energy. The Solar Energy Corporation of India will function as a Section 25 Company whereas

Sardar Swarn Singh National Institute of Renewable Energy will be an autonomous institution. The Solar Energy Corporation will cover the entire gamut of activities under National Solar Mission for development solar sector in the country. The objective of the corporation will inter-alia include plan and execute an integrated programme on development and deployment of solar energy technologies to achieve commercialization. To own, operate and manage any type of power stations (both Grid and Off-Grid) to promote research and development, site selection for power stations, power evacuation and to exchange, distribute and sell power as per the policies of the Govt. of India. This will also assist MNRE in executing Mission's objective through appropriate mechanism besides coordinating with all stake holders. It will facilitate work of R&D Advisory Council and Industry Advisory Council. It would also provide inputs, although ancillary in nature, but essential in the overall development of the sector like the industrial development technology transfer, joint ventures, incentives and investment related matters. Since, this Corporation is going to be an umbrella organization looking after every possible and foreseeable activities for development of solar energy under National Solar Mission, the Committee would watch with keen interest the progress of its operationalisation.

Similarly, the Committee observe that the Sardar Swarn Singh National Institute of Renewable Energy has been established with a view to focus on research in bio-energy. With the development of state-of-the art laboratory and R&D projects, the laboratory is set to operationalise by June, 2012 and development of R&D projects will receive the big boost. This body is being established as an autonomous body. Simultaneously, it is also proposed to set up a National Bio Fuel Development Board and strengthen the existing institutional mechanisms. In the opinion of the Committee, the existing institutional mechanism as ordained under Allocation of Business may result in the duplication of the efforts and overlapping of responsibility with Sardar Swarn Singh National Institute of Renewable Energy. The work on the Sardar Swarn Singh National Institute of Renewable Energy is nearing completion whereas on Solar Corporation of India, it is at the preliminary stage and both when operationalise, will be acting as catalyst for rapid growth of renewable energy resources of the country.

The Committee, while welcoming the initiatives of the Govt. to institutionalize their efforts, recommend that the constitution of larger projects should be done in such a manner that they do not result in duplication of efforts, progress of work be ensured in a time bound manner and the role assigned to them is performed with sincerity and professionalism with par excellence. There should also be special mechanism to periodically review the functions of these bodies with regard to the target set by them and their timely achievement so that corrective measures can follow on the non-performance of these bodies.

Reply of the Government

The observations of the Committee have been noted. The Ministry will ensure that the role and functions of the different institutes/ bodies do not overlap or interfere with one another. The observations of the Committee have been noted. The Ministry will ensure that the role and functions of the different institutes/ bodies do not overlap or interfere with one another.

A mechanism already exists for performance review of NIRE. The progress of its research works is being monitored periodically by a project review committee constituted by MNRE. The overall progress of the institute is being monitored periodically by the Finance Committee, R &D Committee and the Governing Council.

SECI has been set up only recently and the Ministry's efforts are presently directed at making it fully functional. Its functioning will, however, also be reviewed periodically with regard to set targets and achievements. SEC presently functions as a part of the Ministry and not a separate autonomous institution.

SEC presently functions as a part of the Ministry and not a separate autonomous institution.

**[Ministry of New and Renewable Energy
File No. 8/6/2011-P&C Dated 25-9-2012]**

(Recommendation Sl. No.13, Para No. 2.14)

Evaluation of Renewable Energy Sources

The Committee note that the process of preparing resource estimation identification and assessment of potential of various forms of renewable energy are at an incipient stage, bereft of accurate scientific process and largely depending on manual, unscientific or semi-scientific processes. As regards, the estimation of solar energy potential, semi-scientific tenor appears to have been introduced with the contribution from Indian Meteorological Department, use of satellite images and establishment of 50 solar radiation resource assessment stations at the sites having high potential for solar power. But these efforts only provide indicative value of solar resources. It has been planned to bring out first draft of solar satellite by the end of the year based on data collected from solar radiation resource assessment stations and IMD stations.

The methodology for assessment of wind energy is also conventional as it is defined by Latitude and Longitude so that the locations indicated as windy are the places where new masts can be erected and measurement can be done. The scope of assessing the potential of bio mass energy are further complicated and less scientific as the information is collected through (GIS) maps from survey

groups and processed data from satellite images of ISRO. Similarly are the processes for other sources of renewable energy like, small hydel, tidal and geo-thermal etc also needs review and updation.

The current task of assessment of various energy resources is a daunting one. The Committee feel that despite the complexities involved and arduousness of the exercise efforts should be made to overcome the problem so as to achieve the objective. The weather/geographical conditions prevailing in various parts of the country with regional or special characteristic should be taken into account. The Committee feel that potential assessment should be linked with it. By now it must be abundantly clear to the Ministry as to which geographic areas are highly concentrated pockets for potential of various sources of renewable energy in the decreasing order. Accordingly, segmentation can be done with regard to potential of the resources so as to focus their efforts on harnessing the same. Consequent to such segmentation and identification, it should be ensured that efforts are undertaken in high density zones for harnessing whereas potential identification efforts can be focused elsewhere. This will economise expenditure, minimize efforts while maximize the yield. Based on this characteristic, specific research should be done about the nature, behavior, potential and the availability of such natural bounties in lesser pockets. The Committee, therefore, strongly recommend that efforts in this regard should be reinvigorated. If needed, the views/services of the related organizations/individuals can also be considered as an additive in accurately assessing the potential.

Reply of the Government

The Wind Resource Assessment Programme is being coordinated by the Centre for Wind Energy Technology (C-WET), Chennai, an autonomous institution of Ministry. So far 31 States and Union Territories have been covered involving establishment of over 685 wind monitoring stations. Out of the total stations established so far, 233 stations have found to have Wind power density in excess of 200 W/m^2 at 50 m height. Seven volumes of 'Wind Energy Resource Survey in India' have so far been published covering wind data for 234 sites in 14 States/UTs. As per the estimation carried out earlier, the country has a potential of 49,130 MW at 50 m height. However, in view of improved technology and higher hub heights, the potential is likely to go up. The Ministry through the C-WET is getting the wind resource reassessment done at 100 m height. A total of 75 monitoring stations in 7 states are being established to measure the wind data. This will help in further identification of wind potential sites for installation of wind power projects.

The task of estimation of solar radiation has many dimensions especially keeping in view prospects of development of concentrating solar technologies. Till now, IMD has been the sole agency engaged in monitoring of weather parameters including solar radiation, however, these stations are largely located in urban areas whereas large solar projects are likely to be set up in remote and far flung

areas. Potential assessment of solar radiation related to the weather/geographical conditions prevailing in various parts of the country has been achieved through data monitored under weather stations set up by IMD and geographic areas with high potential are quite known at this stage. Optimum design of the solar power projects, however, require much detailed data comprising of the temporal variations of the solar radiation covering its different characteristics such as direct, diffuse and global. In order to be able to generate this information/ data, MNRE took an initiative to set up 51 advanced solar radiation resource stations located in high potential areas for solar energy. The data from these stations has become now available to developers and other stakeholders from CWET Chennai. In order to maintain quality of data, online system has been developed for checking data in cooperation with German experts. In developing areas of differentiated availability of solar radiation, it is also proposed to take help of satellite images which are available from national as well as international sources. The expansion of the network envisages to set up a few facilities to measure atmospheric optical depth to help in simulation of effect of atmospheric particles on the availability of solar radiation. The Ministry is interacting with IMD, ISRO and IITs for coordinated efforts in this direction, and would be open to interact with more experts/ institutions as may be suggested by the Committee.

**[Ministry of New and Renewable Energy
File No. 8/6/2011-P&C Dated 25-9-2012]**

(Recommendation Sl. No.14, Para No. 2.15)

Information and Public Awareness

It is undeniable fact that renewable energy sector is now seen as a significant player in the grid connected power generation and an essential player for energy access. However, the Committee feel that it is also important to generate mass awareness about renewable energy programmes, policies, incentives, systems, products and devices. The Committee is also aware the MNRE implements their information and public awareness programme through Government channels i.e State Nodal Agencies (SNAs), Directorate of Advertising and Visual Publicity (DAVP), National Film Development Corporation (NFDC), Doordarshan, AIR, etc. It also publicise new and renewable sources of energy systems and devices through exhibitions, bus panels, hoardings, kiosks etc and a variety of print, electronic and outdoor publicity.

The Committee, however, find that an allocation of Rs.30 crore (BE) was made for Information and Publicity in 2011-12 while the same has been reduced to Rs.20 crore for the year 2012-13. The Committee urge the Ministry to pursue the

matter with Planning Commission and ensure that the allocation be adequately increased for this purpose.

Reply of the Government

The recommendation of the Committee has been noted. The Ministry will try to step up its activities under publicity and awareness programmes and seek higher allocation at RE stage.

**[Ministry of New and Renewable Energy
File No. 8/6/2011-P&C Dated 25-9-2012]**

CHAPTER III

**OBSERVATIONS/ RECOMMENDATIONS WHICH THE
COMMITTEE DO NOT DESIRE TO PURSUE IN
VIEW OF THE GOVERNMENT'S REPLIES**

-NIL-

CHAPTER IV

OBSERVATIONS/RECOMMENDATIONS IN RESPECT OF WHICH THE REPLIES OF THE GOVERNMENT HAVE NOT BEEN ACCEPTED BY THE COMMITTEE AND WHICH REQUIRE REITERATION

(Recommendation Sl. No.9 Para No. 2.10)

Remote Village Electrification Programmed (RVEP)

The Committee note that the Ministry is implementing Remote Village Electrification Programme for providing basic lighting/electrification in those remote unelectrified villages and hamlets where grid extension is not found feasible by the State Governments and hence are not covered under the Rajiv Gandhi Gramin Vidyutikaran Yojana. They have been informed that the duration of RVE Programme is approved up to March 2012. The Committee are unhappy to find that the initial 11th Plan target for electrification of 10,000 villages and hamlets was reduced to 7000, out of which only 6900 villages and hamlets have been sanctioned which includes 1058 border villages sanctioned under a special package for electrification in border villages of Arunachal Pradesh. The Committee find that so far only 3186 remote villages and hamlets have been provided renewable energy based system and projects and another 400 remote villages and hamlets are under implementation in various North-Eastern States under the scheme. They also fail to understand that even when the reduced targets of 11th Plan could not be achieved, the Ministry's 12th Five Year Plan programmes do not include the RVE Programme at all. In Committee's view, the RVE Programme of the Ministry was a good initiative for providing basic lighting/electrification in the unelectrified remote villages and hamlets where grid connection is not found feasible. Therefore, discontinuing the RVE Programme is depriving people of their basic rights in the remote countryside particularly border areas. The Committee, therefore, recommend that the Ministry should critically review their performance and accomplish the remaining unelectrified villages and hamlets which were sanctioned in 11th Plan in a time bound manner now. The Committee also feel the need for re-assessment/evaluation of the RVE programme and continue the programme in the 12th Five Year Plan in a more effective manner so that the plans are converted into reality and the population living in remote and far flung areas get the basic lighting/electrification thereby improving their living conditions.

Reply of the Government

The Ministry had been implementing Remote Village Electrification Programme for providing financial support for lighting/basic electrification in those remote unelectrified census villages and unelectrified hamlets of electrified census villages where grid extension was not found feasible by the State Governments

and hence were not covered under the Rajiv Gandhi Gramin Vidyutikaran Yojana. Such villages were provided basic facilities for lighting/electricity through various renewable energy sources. The programme was implemented in States by State notified implementing Agencies. The programme completed on 31st March 2012 as per the approval of the Cabinet.

The overall target of 10000 villages and hamlets for the 11th Plan was laid on the basis of approximate projection for the number of villages which were not likely to be covered through grid by the States. Tentative indications received by that time from States, for such villages, were utilized for these projections. This was also explained in the 11th Plan document of the Ministry. The targets set for sanction of financial support become at the best notional in light of the initial indications received from the States for the number of villages required to be covered. Projects were sanctioned on case to case basis after proposals are submitted by the implementing Agencies as per the guidelines of the scheme. During the 11th Plan period, proposals for coverage of 7091 villages and hamlets (including 1058 border villages of Arunachal Pradesh) were received from various State governments, which were sanctioned by the Ministry. In addition, 2824 villages and hamlets, which were sanctioned earlier, were ongoing. Thus all together, in the 11th Plan, 9915 villages and hamlets were sanctioned/ongoing and 5947 villages and hamlets have been completed which also includes the villages and hamlets sanctioned/ongoing prior to the 11th Plan period. The Ministry on its part is making all out efforts to persuade the State Governments through continuous review meetings at various levels for timely completion of these villages & hamlets.

**[Ministry of New and Renewable Energy
File No. 8/6/2011-P&C Dated 25-9-2012]**

Comments of the Committee

(Please see Para No. 17 of Chapter – I of the Report)

CHAPTER V

OBSERVATIONS/RECOMMENDATIONS IN RESPECT OF WHICH FINAL REPLIES OF THE GOVERNMENT ARE STILL AWAITED

(Recommendation Sl. No.5, Para No. 2.6)

Renewable Power – Evacuation Problem

The Committee were apprised during the oral evidence that the Ministry of New and Renewable Energy is facing acute evacuation problem particularly at the solar installations in Rajasthan and Laddakh and Wind Energy Installations in Tamil Nadu which otherwise are ideal places for setting up solar photovoltaic panels and wind power installations respectively. The problem may aggravate in future also as more and more solar energy units are coming up under National Solar Mission and Wind Energy Technology is also showing incremental progress in the country. The Committee were also apprised that the MNRE had proposed Rs.1500 crore for transmission infrastructure and Grid-interactive Renewable Power Programme so that the power generated from these projects which cannot be absorbed in the States could be navigated and connected to the National Grid. The Secretary, MNRE also informed the Committee that the Planning Commission did not grant or sanction Rs.1500 crore for transmission infrastructure stating that this is the job of Ministry of Power. In view of this, the Committee recommend that the Ministry of New and Renewable Energy should again take up the matter with the Planning Commission for reconsideration and finalise the authority responsible in consultation with Ministry of Power for the job in a time bound manner in order to give a boost to the upcoming Grid-interactive Renewable Power Programmes so as to utilize the power generated fully. The Committee would await follow-up action taken by the Ministry in this regard.

Reply of the Government

Although the allocation of Rs.1500 crore for transmission infrastructure has not been approved for the Annual Plan 2012-13, a total requirement of Rs.7,000

crore towards this component has been projected by the Ministry in its 12th plan proposals submitted to the Planning Commission. Further necessary action will be taken by the Ministry soon after final approval of the plan proposals by competent authority that is presently awaited.

**[Ministry of New and Renewable Energy
File No. 8/6/2011-P&C Dated 25-9-2012]**

Comments of the Committee

(Please see Para No. 11 of Chapter – I of the Report)

**NEW DELHI
17 December, 2012
Agrahaya 26, 1934 (Saka)**

**MULAYAM SINGH YADAV,
Chairman,
Standing Committee on Energy**

APPENDIX - I

MINUTES OF THE FOURTH SITTING OF THE STANDING COMMITTEE ON ENERGY (2012-13) HELD ON 11th DECEMBER, 2012 IN COMMITTEE ROOM 'E' PARLIAMENT HOUSE ANNEXE, NEW DELHI

The Committee sat from 1500 hrs. to 1530 hrs.

PRESENT

Shri Motilal Vora - in the Chair

2. Shri Shripad Yesso Naik
3. Smt. Mausam Noor
4. Shri Ravinder Kumar Pandey
5. Dr. Padamsinha Bajirao Patil
6. Shri A.Raja
7. Shri Bajju Ban Riyan
8. Shri Nripendra Nath Roy
9. Shri C.L. Ruala
10. Shri Sushil Kumar Singh
11. Shri Jagda Nand Singh
12. Shri Vijay Inder Singla
13. Shri Bhishma Shankar alias Kushal Tiwari

RAJYA SABHA

14. Shri V.P. Singh Badnore
15. Shri Bhubaneswar Kalita
16. Prof. Anil Kumar Sahani

SECRETARIAT

- | | | |
|-------------------------------|---|---------------------|
| 1. Shri Brahm Dutt | - | Joint Secretary |
| 2. Smt. Abha Singh Yaduvanshi | - | Director |
| 3. Shri N.K.Pandey | - | Additional Director |

2. In the absence of the Chairman, the Committee chose Shri Motilal Vora, Member of the Committee to act as Chairman for the sitting in accordance with Rule 258 (3) of the Rules of Procedure and conduct of Business in Lok Sabha.

3. At the outset, the Chairman welcomed the Members of the Committee and briefly apprised them of the Agenda for the sitting. The Committee then took up for consideration the draft Reports on:

- i) Action Taken on the recommendations contained in 27th Report on Demands for Grants (2012-13) of the Ministry of New and Renewable Energy.
- ii) Action Taken on the recommendations contained in 28th Report on Demands for Grants (2012-13) of the Ministry of Power.

4. After discussing the contents of the Reports in detail, the Committee adopted the aforementioned draft Reports with a minor modifications in Action Taken Report on the recommendations contained in 27th Report on Demands for Grants (2012-13) of the Ministry of New and Renewable Energy.

5. The Committee also authorized the Chairman to finalise the above-mentioned Reports and present the same to both the Houses of Parliament in the current Session.

The Committee then adjourned

APPENDIX II
(Vide Introduction of Report)

ANALYSIS OF ACTION TAKEN BY THE GOVERNMENT ON THE
OBSERVATIONS/ RECOMMENDATIONS CONTAINED IN THE
TWENTY-SEVENTH REPORT (15TH LOK SABHA) OF THE STANDING
COMMITTEE ON ENERGY

(i)	Total number of Recommendations	14
(ii)	Observations/Recommendations which have been accepted by the Government:	
	Sl. Nos. 1,2,3,4,6,7,8,10,11,12,13 and 14	
	Total:	12
	Percentage	86%
(iii)	Observations/Recommendations which the Committee do not desire to pursue in view of the Government's replies:	
	Nil	
	Total:	00
	Percentage	00%
(iv)	Observation/Recommendation in respect of which the replies of the Government have not been accepted by the Committee and which require reiteration:	
	Sl. No. 9	
	Total:	01
	Percentage	07%
(v)	Observation/Recommendation in respect of which final replies of the Government are still awaited:	
	Sl. No.5	
	Total:	01
	Percentage	07%